



Pure Chromatography Systems

**Pure space. Pure safety.  
Pure simplicity.**

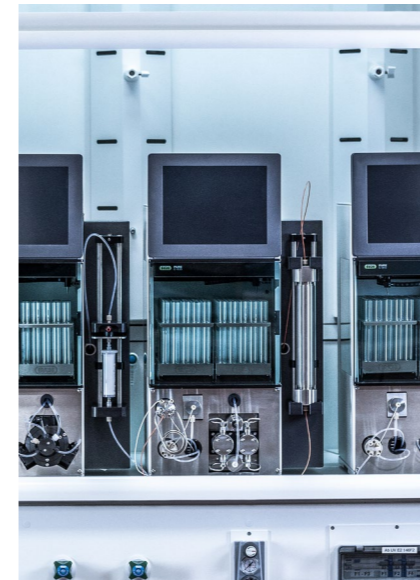




## Pure Systems

The simple and space saving separation solution

The Pure chromatography systems are extremely compact, ensure safety on the highest level and are easy to use for any flash or prep HPLC application. The platform has been designed to get more purification into less space, protect you and your sample and to achieve best results in the most convenient way.



### Space Saving

Compact and clever design

The Pure instruments enable efficient use of lab space. Several features make them fit in any limited environment:

- Small footprint and an extra solvent platform
- Cartridge/ column holders on the front of the system
- Integrated UV and ELSD
- Flash and prep HPLC in one system



### Safe Operation

Protection of the lab staff, their research and working environment

Safety comes first! Therefore BUCHI developed and combined numerous state-of-the-art technologies for Pure:

- Closed fraction collector bay ensures clean air in the lab
- Leak and pressure sensors for safe operation
- Remote control reduces exposure to the lab environment

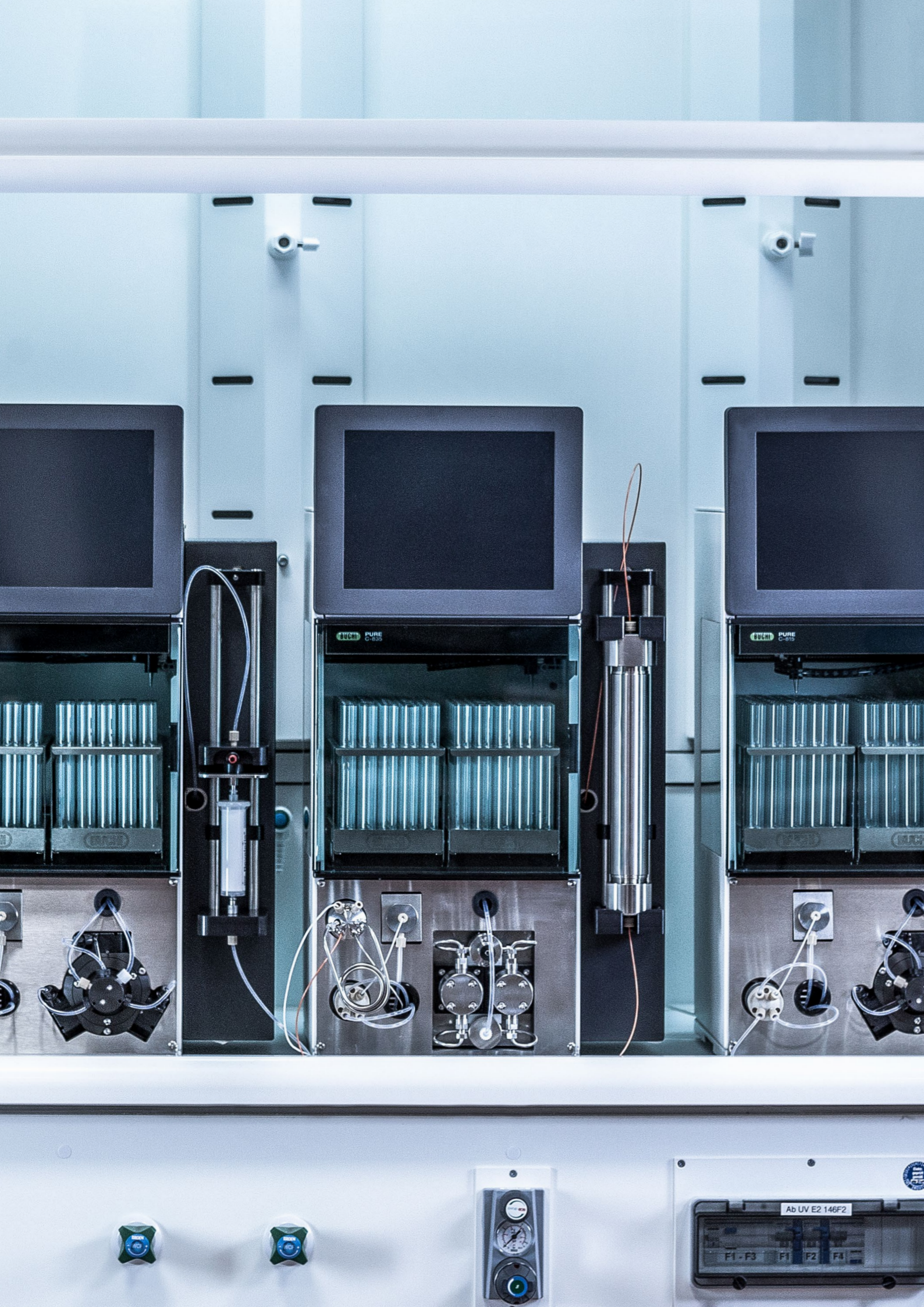


### Simple to Use

Intuitive and convenient operation

Ease of use is what stands out in all Pure instruments. Key elements are:

- The software interface follows a proven logic
- The integrated ELSD technology is most user-friendly
- The sample injector is universal
- All important parts are easily accessible for cleaning or maintenance



## Space Saving

### Compact and clever design

Lab space has a significant impact on costs. Hence, Pure offers a winning combination of high performance, superior quality and compact instrument size.

#### Save space on your bench thanks to a small footprint

Pure is one of the smallest chromatography systems on the market. With a minimum width, it frees up bench space for storing your sample, consumables or other lab equipment. An extra solvent platform on top provides space for four bottles, eliminating the need to keep them on the bench.

The cartridge / column holders are positioned in front of the Pure instruments so that they are easily accessible and their side parts are free.

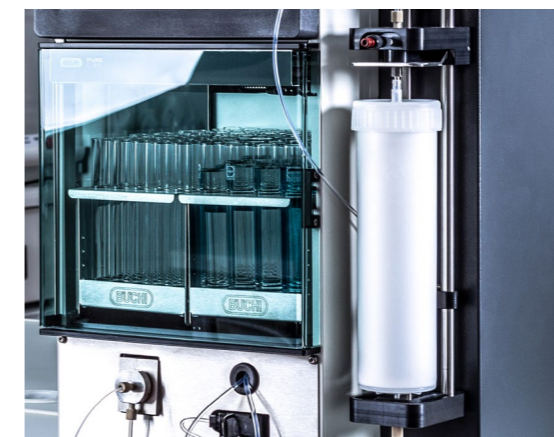
#### Maximize your lab space with multifunctionality

With the Pure platform, it is possible to combine different techniques in one system without sacrificing features or functionality:

- Flash and prep HPLC: pre purification and high resolution step
- UV and ELS detection: detection of any compound (chromophoric and non-chromophoric)

These dual capability-instruments gives chemists highest flexibility and allow them to maintain hands-on control throughout the whole process in one single laboratory.

Cartridge / Column holder



Solvent platform





## Safe Operation

Protects users, samples and environment

Any lab contains significant risks and the prevention of laboratory accidents requires great care. Pure has been designed to make chromatography safe for everybody.



### Enjoy clean air using a fume enclosure

Even though every lab is equipped with a fume hood, its space is rather limited and used mainly for chemical reactions.

The Pure instruments can be operated safely even outside of a fume hood as they are all equipped with a fume enclosure at the fraction collector and are capable of active ventilation.



### Reduced exposure to chemicals with remote control

Any scientific workplace has a considerable potential for health hazards and risks. The best prevention is to spend as little time as possible in a lab. The Pure remote control allows the user to monitor and to control their purification from a PC, tablet or smartphone.



### Feel safe with your system thanks to automatic monitoring and settings

The highest level of protection should be granted to the user, the sample and the system itself. All Pure systems are equipped with sensors monitoring the vapor, pressure and the solvent level in the bottles during the whole purification run. Thanks to the RFID technology on the racks, potential risks of wrong settings are eliminated.



## Simple to Use

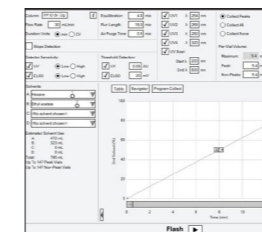
### Intuitive and convenient operation

The purification of a compound is time intensive and usually includes the handling of several different instruments. Consequently, the user attempts to minimize the time to get the device or the method running. The simple operation of the Pure instruments streamlines the purification process and makes it highly efficient.



### Flexible sample injection thanks to a smart design

The sample injection modes are as diverse as the applications themselves. Pure offers convenient ways for both liquid and solid injection. The universal flash cartridge holder allows the user to choose between bottom-top or top-bottom injection.



### Minimized time for user training thanks to its simple software

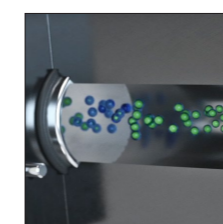
All Pure systems can be easily and safely operated thanks to its dedicated software. With a single programming screen featuring simple run controls the time to train a user is minimized. Single click to switch between flash and prep HPLC mode, simplified method optimization (Pure Navigator Software), quick parameter modification during a run and auto-recognition (RFID) of racks help to achieve the best purification results, whether you are an expert or not.

### Make all your compounds easily visible with ELSD

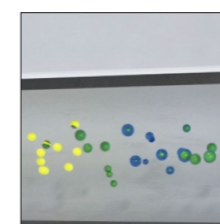
Control of the integrated ELSD is beyond simple:

- No temperature control or cleaning needed
- Eluent split to ELSD is delivered using a gas stream so no additional pump or solvent required
- Software-selectable sensitivity

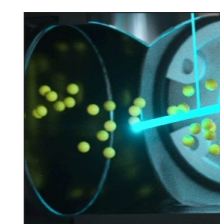
Since ELSD is a disruptive technique, sample diverted to ELSD is lost. With 30  $\mu\text{l} / \text{min}$ , the Pure ELSD features the lowest sample loss in the market.



Nebulization



Evaporation



Detection

## Product Overview

The best solution for your need

|   | C-805       | C-810       | C-815     | C-830       | C-835     | C-850       |
|---|-------------|-------------|-----------|-------------|-----------|-------------|
|   |             |             |           |             |           |             |
| <b>Method</b>                           |             |             |           |             |           |             |
| Flash                                   | ●           | ●           | ●         | –           | –         | ●           |
| Prep HPLC                               | –           | –           | –         | ●           | ●         | ●           |
| <b>Pump</b>                             |             |             |           |             |           |             |
| 3 piston pump                           | ●           | ●           | ●         | –           | –         | –           |
| HPLC pump                               | –           | –           | –         | ●           | ●         | ●           |
| Flow rate [mL / min]                    | 250         | 250         | 250       | 100         | 100       | 250<br>100  |
| Max pressure [bar]                      | 50          | 50          | 50        | 300         | 300       | 300         |
| Air purge                               | –           | ●           | ●         | –           | –         | ●           |
| Solvent lines                           | 2           | 4           | 4         | 4           | 4         | 4           |
| <b>Sample injection</b>                 |             |             |           |             |           |             |
| Direct liquid injection on cartridge    | ●           | ●           | ●         | –           | –         | ●           |
| Liquid loop injection                   | –           | –           | –         | ●           | ●         | ●           |
| Solid                                   | Optional    | Optional    | Optional  | –           | –         | Optional    |
| Flash cartridge holder (≤ 330 g)        | ●           | ●           | ●         | –           | –         | ●           |
| Flash cartridge holder (750 – 5000 g)   | Optional    | Optional    | Optional  | –           | –         | Optional    |
| Prep HPLC column holder (≤ 30 mm ID)    | –           | –           | –         | ●           | ●         | ●           |
| Prep HPLC column holder (50 – 70 mm ID) | –           | –           | –         | Optional    | Optional  | Optional    |
| <b>Detectors</b>                        |             |             |           |             |           |             |
| UV scan function                        | –           | ●           | ●         | ●           | ●         | ●           |
| UV wavelengths                          | 2           | 4           | 4         | 4           | 4         | 4           |
| UV spectra [nm]                         | 200 – 400   | 200 – 800   | 200 – 800 | 200 – 800   | 200 – 800 | 200 – 800   |
| ELS detection                           | –           | –           | ●         | –           | ●         | ●           |
| Dimension WxDxH [mm]                    | 365x570x680 | 365x570x680 |           | 365x570x680 |           | 365x570x680 |
| Item Number                             | 11C80500    | 11C81000    | 11C81500  | 11C83000    | 11C83500  | 11C85000    |

### Which system matches your task?

#### Purification of a low complexity sample

- Low complex samples show easy or reasonable separation between the peak of interest and impurities
- Usage of medium to big size (30 – 60 µm) particles are the most economic solution for standard applications

#### Purification of a high complexity sample

- High complex samples are difficult to separate and show partially overlapping peaks
- Usage of small size (5 – 15 µm) silica particles needed, which give excellent resolution (= purity) but generate high back pressures

#### Injection of small to high sample concentrations

- Sample concentrations up to 300 g

#### Injection of small sample concentrations

- Sample concentrations up to 1 g

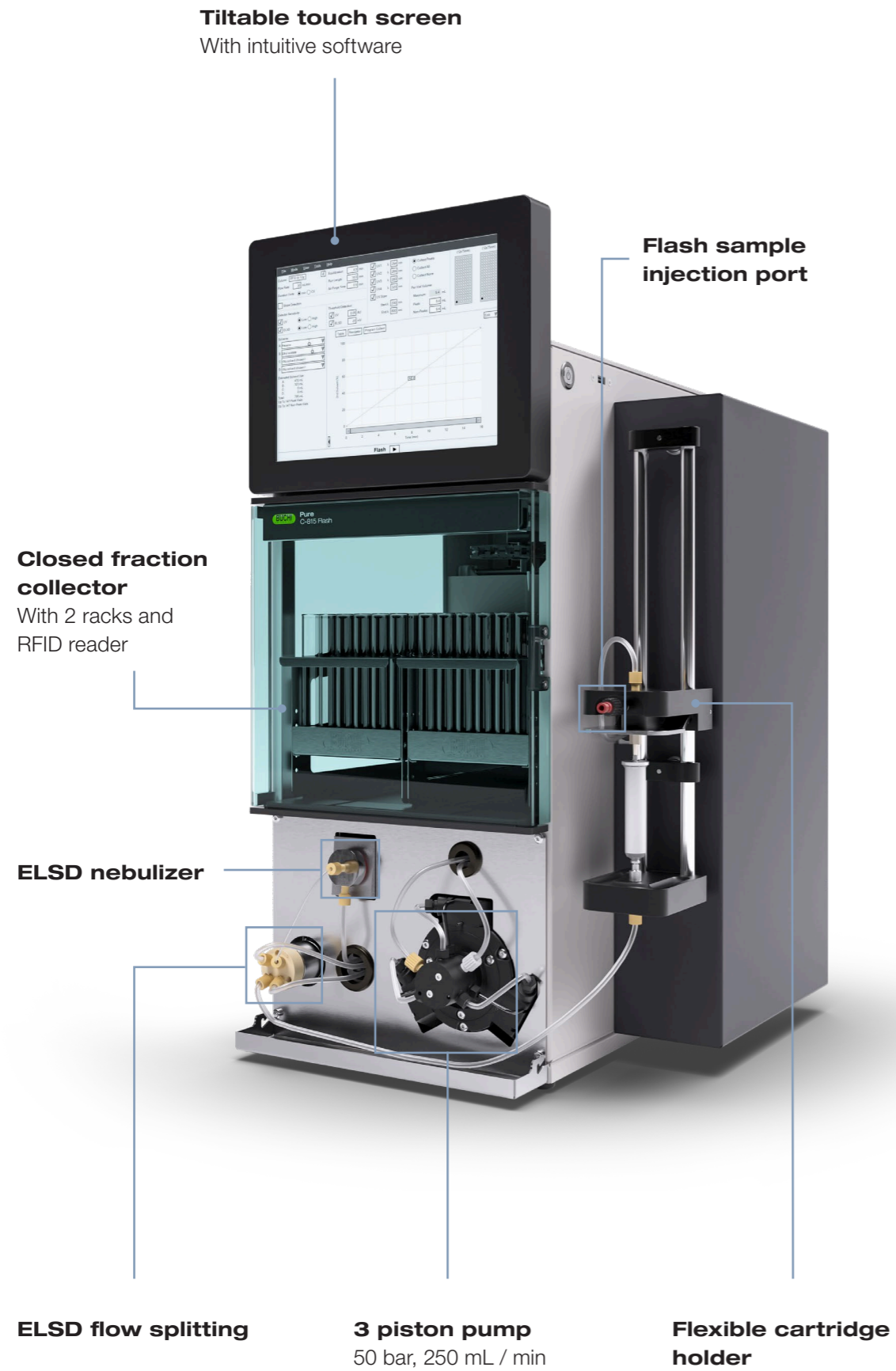
#### Detection of chromophoric compounds

- Chromophoric compounds absorb light wavelength in the UV or visible wavelength range (200 – 800 nm)
- Compounds suitable for UV-Vis detection typically contain unsaturated bonds, aromatic groups, or functional groups containing heteroatoms

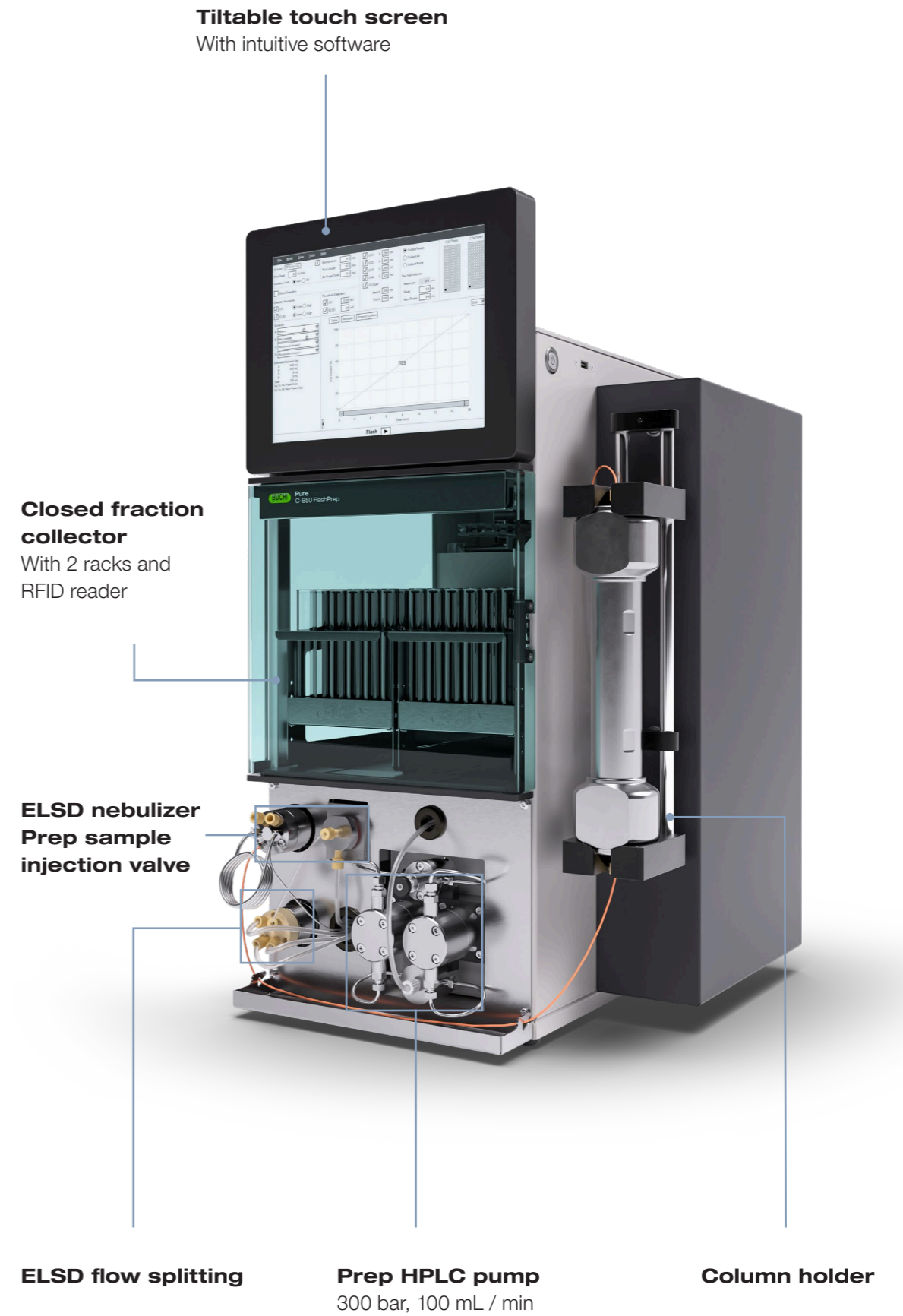
#### Detection of non chromophoric compounds

- Non chromophoric compounds do not absorb light and therefore can't be visualized via an UV-Vis detector
- Typical compounds are carbohydrates
- Non chromophoric compounds can be detected via evaporative light scattering (ELS) detection

## Pure C-815 Flash



## Pure C-850 FlashPrep



## Accessories



### Dry Air Supply

The Dry Air Supply simplifies the operation of the Pure system by producing particle-free dry air on demand without the need for operator attention. Air is used in the Pure system to carry sample to the ELS detector and to purge solvents out of spent cartridges and sample loaders.

|                          |          |
|--------------------------|----------|
| Pure Dry Air Supply unit | 11069026 |
|--------------------------|----------|



### Solvent platform

The Pure system is equipped with an extra solvent platform on top which provides space for four bottles. This allows for better use of available space and reduces risk of spills.

|                                  |          |
|----------------------------------|----------|
| Pure Solvent bottle platform kit | 11069285 |
| Pure Retaining container         | 11068468 |



### Racks

The fraction collector of the Pure systems is compatible with several different sizes of racks and glass tubes, which enable an optimal collection depending on the fractions sizes. All racks get automatically identified by the Pure system via an RFID tag.

|   |          |
|---|----------|
| Pure Rack type 1 for 12 × 75 mm glass tubes (1 pc)    | 11066672 |
| Pure Rack type 2 for 13 × 100 mm glass tubes (1 pc)   | 11066673 |
| Pure Rack type 3 for 16 × 125 mm glass tubes (1 pc)   | 11066674 |
| Pure Rack type 4 for 16 × 150 mm glass tubes (1 pc)   | 11066675 |
| Pure Rack type 5 for 18 × 150 mm glass tubes (1 pc)   | 11066676 |
| Pure Rack type 6 for 25 × 150 mm glass tubes (1 pc)   | 11066677 |
| Pure Rack type 7 for squared bottles (ø 65 mm) (1 pc) | 11068452 |
| Pure Rack type 8 for funnels (ø 50 mm) (1 pc)         | 11069407 |
| Pure Rack type 9 for 16 × 100 mm glass tubes (1 pc)   | 11069242 |



### Loops

In the prep HPLC mode, the sample is loaded into a stainless loop before it gets automatically transferred to the column. Five different loop sizes can be selected for the Pure systems.

|                        |          |
|------------------------|----------|
| Pure 2 mL sample loop  | 11068476 |
| Pure 5 mL sample loop  | 11068205 |
| Pure 10 mL sample loop | 11068206 |



### Integrated big size cartridge holder

The Pure systems enables work with big size cartridges (750 – 5000 g) and prep HPLC columns (50 – 70 mm ID) which can be connected via an integrated holder.

|                           |          |
|---------------------------|----------|
| Pure cartridge holder XXL | 11070532 |
| Pure column holder XL     | 11068467 |



### Solid loader hardware

The Pure platform offers a specific solution for solid loading, which allows an easy and flexible filling of the sample in an empty tube and connection directly to the Pure system. This equipment can handle up to 50 bar (725 psi) and therefore provides maximum flexibility.

|   |          |
|---|----------|
| Pure Solid loader S set, incl. adapter set, sleeve, tubes (20 pcs) and frits (40 pcs) | 11068975 |
| Pure Solid loader M set, incl. adapter set, sleeve, tubes (20 pcs) and frits (40 pcs) | 11070505 |
| Pure Solid loader frits S (40 pcs)  | 11068969 |
| Pure Solid loader frits M (40 pcs)  | 11069654 |
| Pure Solid loader tubes S (20 pcs)  | 11068971 |
| Pure Solid loader tubes M (20 pcs)  | 11069653 |
| Pure Solid loader insertion rod S (1 pc)  | 11068973 |
| Pure Solid loader insertion rod M (1 pc)  | 11070569 |

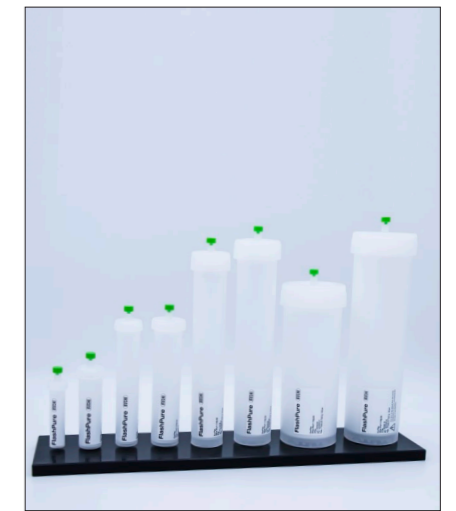




## Pure Consumables

More focus on your application

The Pure consumable portfolio offers an unrivaled range of products for any flash, prep HPLC & SFC application. Extra features and tools ensure optimal results even for challenging separations without compromising on convenience.



### High Flexibility

Multiple solutions for flash, prep HPLC and prep SFC applications

The wide range of Pure consumables cover any need:

- Flash cartridges
- Sample loader
- Prep HPLC & SFC columns
- Glass columns

The consumables are available with numerous stationary phases and dimensions. Furthermore all are compatible with any leading flash, prep HPLC or SFC systems on the market.

### Specialized Solutions

Features that go beyond your expectations

Some applications require specialized equipment. Therefore BUCHI offers customized solutions:

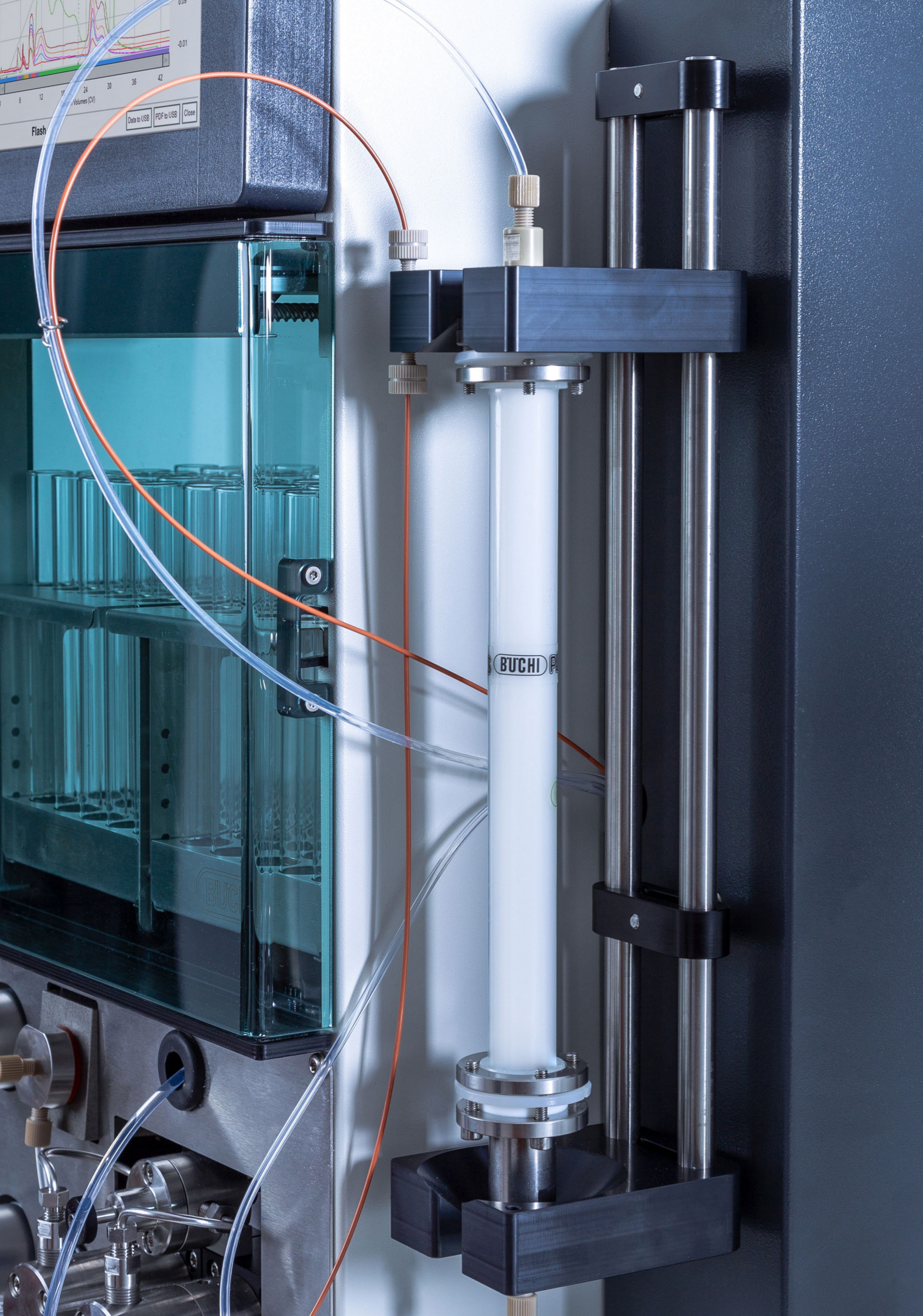
- Glass columns for loading capacities  $\geq 300$  g
- Solid loader equipment resistant up to 50 bar (725 psi)
- 70 mm ID prep HPLC columns for large scale purifications
- Prep SFC columns for chiral and achiral applications

### Maximum Convenience

Development of a flash method in no time

Valuable tools make the setup of a flash purification run easier and faster:

- The TLC to flash navigator software simplifies method optimization
- Easy selection of a cartridge incl. all run parameters
- Air purge of used cartridges allows proper disposal

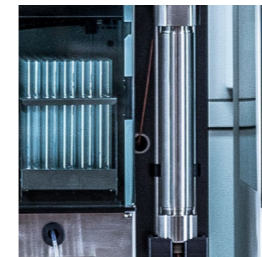


## Pure Consumables Portfolio



### FlashPure

FlashPure cartridges are offered in a wide range of sizes, covering different stationary phases, particle sizes and geometries. This enables the user to choose the flash cartridge which best suits his purification needs.



### PrepPure

PrepPure HPLC and SFC columns are filled with high quality silica and enable the performance of high resolution separations. Easy scalability from 4.6 – 70 mm ID and phases for standard and targeted applications make PrepPure the obvious choice for best results.



### GlasPure

When a purification has to be scaled up, GlasPure offers maximum flexibility in terms of scale and separation requirements. The glass columns are designed for sample amounts over 300 g and pressure up to 50 bar (725 psi).



### Sample Loader

The type of sample loading on a flash cartridge or a prep HPLC column has a big impact on the final purification results. With the Pure sample loading portfolio, the chemist has the choice between several convenient options.



## Service & Training

### BUCHI Service packages

#### **BUCHI START - The highest efficiency from the very beginning**

From a professional installation all the way to a trouble and worry free agreement that will leave you with total cost predictability at the highest possible efficiency. [www.buchi.com/start](http://www.buchi.com/start)

##### «Install»

- Product set-up and testing
- Hands-on training from a certified technician
- Evaluation of the immediate surroundings of your new product
- Best integration of your new product into the existing infrastructure

##### «IQ/OQ»

- Product or system installation
- Installation and Operational Qualification

#### **BUCHI EXACT - Certified accuracy for highest level of confidence**

It is the professional and comprehensive qualification of your BUCHI product. We perform qualification services on a level that can only be achieved by the Manufacturer.

[www.buchi.com/exact](http://www.buchi.com/exact)

##### «OQ»

- Our one-time OQ service will provide you with the necessary documents and certificates. The service team remind you about the possibility for a follow-up OQ before the certificates expire.

##### «OQ Circle»\*

- Buying an OQ package instead of Individual OQs will grant you an additional discount on the documents, put you on top of the priority for service relevant topics and give you the piece of mind that BUCHI will take care of the scheduling aspects of the visits.

#### **BUCHI CARE - Unbeatable Reliability**

Maintaining a heavily used device requires different parts and inspection frequencies than units that are operated occasionally. Our approach takes factors like these into consideration to provide you with an optimal yet cost-efficient solution.

- They are tailored for your required amount of visits

Learn more on [www.buchi.com/care](http://www.buchi.com/care)

#### **BUCHI ACADEMY - Increase your know-how, get the edge over your competition**

Expert Know-How solutions are provided by the application experts in our competence centers in Flawil, Beijing and Mumbai and the locally available experts at our marketing organisations. Our scientific support offers pre-sales feasibility studies, tailored solution offers, after sales onsite support, regular basic to advanced courses, on demand customized training.

Learn more on [www.buchi.com/academy](http://www.buchi.com/academy)

## Complete your portfolio



### Evaporation

We offer dedicated solutions for laboratory rotary evaporation for R&D or quality control. Based on our experience and knowledge, we offer tailor-made solutions to cover a wide range of distinct needs and achieve highest convenience.

### Chromatography

Whatever the complexity or the scale of your purification process is, the BUCHI preparative chromatography systems are designed to fulfill your changing needs. Together with a broad range of high performance flash chromatography columns, we provide you the optimized solution suited to your purification workflow.

### Freeze Drying

Our first laboratory Freeze Dryer with Infinite-Technology™ and Infinite-Control™. Applications range from R&D to quality control within a broad spectrum of market segments. Our solutions stand out by their efficiency and practical capability.

### Melting Point

To determine your melting and boiling points with high accuracy, visual or automatic determination and optional qualification packages meeting highest regulatory standards.

# Core messages to our customers

## BUCHI creates added value

“Quality in your hands” is the guiding principle that shapes our philosophy and our actions. It challenges us to provide outstanding services that are precisely tailored to your needs. This means that we must stay in close contact with our customers. That is why we keep in touch and continue to work very hard to understand you and your business even better.

We help you by providing high-quality products, systems, solutions, applications and services that offer you added value. This allows you to focus entirely on your processes and your work.



### Competent

We have the technological expertise and decades of experience needed to provide competent support and work with you to continually improve our services.



### Reliable

We guarantee the quality and functionality of our equipment and will continue to help you quickly and efficiently whenever something does not operate to your satisfaction.



### Safe

By collaborating closely with you, we do everything in our power to make our products, systems, solutions, applications and services as safe as possible for people and the environment.



### Cost-effective

We strive to create a high level of economic benefit and maximum added value for you.



### Global

As an international family-owned business with own subsidiaries and qualified distributors, we have a presence wherever you are located.



### Easy

We support you by providing carefully designed solutions as well as instruments and systems that are easy to operate.



### Sustainable

We support environmentally friendly processes and manufacture products that have a long service life. We utilize advanced technologies to leave the smallest environmental footprint possible.

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[www.buchi.com](http://www.buchi.com)

Quality in your hands

